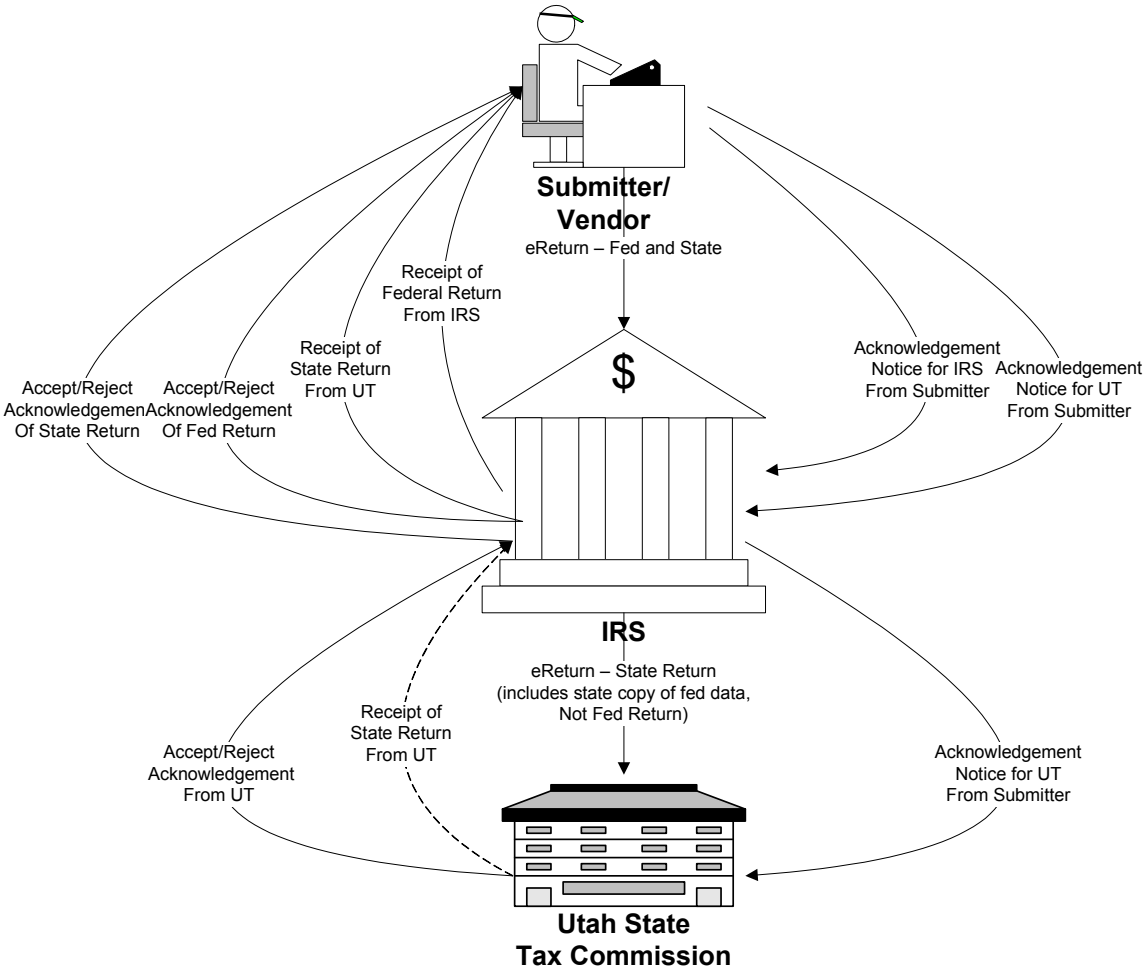
Fed/State MeFTechnical Guide for Utah

Revised – May 5, 2008

MeF Data Flow



***Note**: In this document, the terms Submitter, Vendor and Transmitter are used interchangeably to refer to the entity submitting data via MeF.*

Utah MeF Architecture and Process

The State of Utah follows IRS and Tigers requirements and rules in accepting and processing Tax Year 2007 Corporate E-File Returns. Utah Return ZIP files are downloaded several times a day on a pre-set 24x7 schedule.

A Return ZIP file may consist of a combined Federal/State return or a State-Only return. Each successful download will produce a Receipt XML file that will be

transmitted back to the IRS, and available to the submitter for download. The downloaded Federal data will be saved for the reference of the State of Utah.

The downloaded State Return will be processed for well-formedness to ensure that the file is in acceptable XML format, and validated against the current Utah schema posted on our web site. The file will then be validated for Business Rules. These rules are posted on our website for reference.

Utah schemas are Category-Based at this time. However, each XML path and the form item to which it is linked can be found in the spreadsheet "XML Elements by Form" for each type of return we accept via the MeF program.

The results of the Business Rules validation will be used to create an XML Acknowledgement file. This Acknowledgement file will be transmitted to the IRS server from where the submitter may download it and view the results. If the file passes the tests and rules, it will be parsed, and the return data will be posted to the taxpayer's records. The Return will then be considered "filed". If the file fails the Business Rules, the submitter must re-submit the file after examining the specific failures and making the appropriate changes.

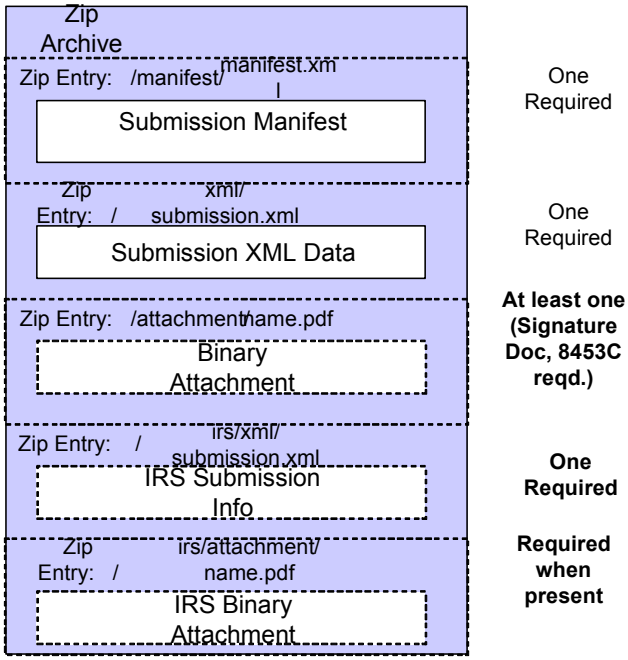
Sample "Test Returns" for each type of return have been provided on the website for the submitters' reference, and are listed under the name referenced in the NameControl element.

Utah MeF File Composition Requirements

Submitters may read IRS specifications in their publication, MeF Submission Composition Guide, and other subject related publications such as Publication 4164, to get a thorough understanding of the technology deployed in the MeF program. IRS publications may be accessed at www.irs.gov .

Utah uses the A2A (Application to Application) channel to communicate with MeF. A transmitter needs to have web service client software installed on a client machine. Utah requires a submission.xml file containing IRS return data regardless of whether the submission is for Federal/State or State Only.

The following diagram illustrates the structure of all e-filed submissions made to Utah via MeF.



Composition of the Utah ZIP File transmitted from IRS server

As indicated in the diagram above, Utah receives a zip file containing other files from the IRS. The contents of the overall zip file are as follows:

Federal/State ZIP File

Return File Name.ZIP

- Attachment Directory
  - TC8453C.PDF *(Required document)*
  - TC20A - Mineral Credit.PDF
  - TC20C - Fed Credit.PDF
  - TC20 - IRC 338h10.PDF
- IRS Directory
  - XML Directory
    - *Federal Return Filename*.XML
      (Accepts Submission.XML or other Submitter assigned name)
- Manifest Directory
  - Manifest.XML
- XML Directory
  - *State Return Filename*.XML
    (Accepts Submission.XML or other Submitter assigned name)

State-Only ZIP File

Note that Utah requires a copy of the IRS return data even in the State-Only zip file.

Return File Name.ZIP

- Attachment Directory
  - TC8453C.PDF *(Required document)*
  - TC20A - Mineral Credit.PDF
  - TC20C - Fed Credit.PDF
  - TC20 - IRC 338h10.PDF
- **IRS Directory**
  - **XML Directory**
    - ***Federal Return Filename*.XML**
      (Accepts Submission.XML or other Submitter assigned name)
- Manifest Directory
  - Manifest.XML
- XML Directory
  - *State Return Filename*.XML
    (Accepts Submission.XML or other Submitter assigned name)

Attachment Requirements

The “Attachments Directory” links for each type of return provides examples of common attachments for each type of return. Utah form TC8453C must be submitted, as an attachment, with a valid officer signature. To create this attachment, download a current year blank form TC8453C from the Utah web site, print it, have the officer sign it, scan the signed form, save it as a file with a .pdf extension and attach it to the ZIP package.

The corresponding attachment elements in the State return XML for the above manifest entries follow:

```
<AttachmentLink>
<Reference>TC8453C</Reference>
<Description>OFFICER SIGNATURE</Description>
<TypeAttachment>PDF</TypeAttachment>
<LinkToAttachment>TC8453C.PDF</LinkToAttachment>
</AttachmentLink>
<AttachmentLink>
<Reference>TC20A - Mineral Credit</Reference>
<Description> TC20A - Mineral Credit</Description>
<TypeAttachment>PDF</TypeAttachment>
<LinkToAttachment> TC20A - Mineral Credit.PDF</LinkToAttachment>
</AttachmentLink>
<AttachmentLink>
<Reference>TC20C - Fed Credit</Reference>
<Description>TC20C - Fed Credit</Description>
<TypeAttachment>PDF</TypeAttachment>
```

```
<LinkToAttachment>TC20C - Fed Credit.PDF</LinkToAttachment>
</AttachmentLink>
<AttachmentLink>
<Reference>TC20 - IRC 338h10</Reference>
<Description>TC20 - IRC 338h10</Description>
<TypeAttachment>PDF</TypeAttachment>
<LinkToAttachment>TC20 - IRC 338h10.PDF</LinkToAttachment>
</AttachmentLink>
```

Note: Transmitters may name any additional attachments such that the name is meaningful and it meets the TIGERS requirement of a maximum of 20 characters including the .pdf extension. All Attachment files must also be listed in the <LinkToAttachment> element using the exact filename.

Data Requirements

All money amounts must be reported as whole dollars.

XML fields containing blank or zero should be omitted from the XML file, except for the fields that are required.

Ratios should be carried out to six decimal places (e.g., ratios on Schedule J on TC-20).

IRS Federal Return

Utah accepts the name "submission.xml" or other filename. Utah does not process the Federal Return but saves it exactly as received for viewing with ReadMef stylesheets.

Manifest XML

Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<StateSubmissionManifest xmlns="http://www.irs.gov/efile" xmlns:efile="http://www.irs.gov/efile">
        <SubmissionId>48172420072410020002</SubmissionId>
        <EFIN>481724</EFIN>
        <GovernmentCode>UTST</GovernmentCode>
        <SubmissionType>1120S</SubmissionType>
        <TaxYear>2007</TaxYear>
        <SubmissionCategory>CORP</SubmissionCategory>
        <FederalEIN>110000023</FederalEIN>
        <NameControl>BIGE</NameControl>
        <IRSSubmissionId>48172420072410010002</IRSSubmissionId>
</StateSubmissionManifest>
```

State Return

Utah accepts the name "submission.xml" or other filename. In addition, Utah has some specific requirements to be included in the State return XML. Each field/element on the returns and schedules can be found listed by clicking on the “Fields” link under each form.

1. First element of XML must be:
   <?xml version="1.0" encoding="utf-8"?> or
   <?xml version="1.0" encoding="UTF-8"?>
2. Any number of comments may be entered following the encoding element.
3. Root element <ReturnDataState must follow any comments.
4. Root element attributes may follow in any order.
5. The attribute for Schema Location should be coded as: xsi:schemaLocation=http://www.irs.gov/efile " without a local directory for the submitter schema. Utah will add their schema location.
6. The attribute for StateBusinessVersionNumber should be coded as the most recent TIGERS release accepted by Utah. Utah will notify submitters when this version changes. Current version is StateBusinessVersionNumber="2007v1.0".
7. The attribute for StateSpecificVersionNumber should be coded with the following information. Utah requires a string identifying the Return Year, Form Type, Schema Version and Test/Production Indicator. The version will be based on the TIGERS StateBusinessVersionNumber with a sub-version attached. This also corresponds to the current schema posted on the Utah web site. Finally, add either "Test", “Prod” or "Production" to the end of the string. "Test" will indicate that the return submission is for testing only and Utah will send a Receipt, process the return with Business Rules and will send an Acknowledgement. The return will not be further processed. The alternative “Prod” or "Production" indicator will follow the same procedure but will then post the return to the Production system. Example information must be:
   StateSpecificVersionNumber="2007,TC-20,v1.0.1,Test"
   StateSpecificVersionNumber="2007,TC-20S,v1.0.1,Production"
   or "2007,TC-20S,v1.0.1,Prod"
   Utah will notify submitters when this version changes and the new schema is available on the web.

Receipts XML

Utah will create a receipt for each return downloaded, and transmit it to the IRS server from where the submitter may retrieve it.

Example:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<SubmissionReceiptList xmlns="http://www.irs.gov/efile"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.irs.gov/efile">
        <Count>1</Count>
        <SubmissionReceipt>
                <SubmissionId>48172420072410020002</SubmissionId>
                <Timestamp>2007-08-29T22:26:06Z</Timestamp>
        </SubmissionReceipt>
</SubmissionReceiptList>
```

Acknowledgements XML

Utah will create an acknowledgement for each return downloaded. State returns will be either "Accepted" or "Rejected" depending on the return's well-formedness, validation with the schema and the results of validation via Utah's Business Rules.

Note: Acknowledgments to **"Production"** returns will contain
<FilingStatus>Accepted</FilingStatus> or <FilingStatus>Rejected</FilingStatus>
Acknowledgments to **"Test"** returns will contain
<FilingStatus>Accepted / Test</FilingStatus> or <FilingStatus>Rejected / Test</FilingStatus>

Example 1 – Failed Schema Validation:

The Submitter can validate the XML return file prior to submission by using a software product such as XMLSPY which provides a "validate" feature. Other software packages may also provide this and related features.

This Utah State return did not validate against the schema referenced in the StateSpecificVersionNumber.

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<AcknowledgementList xmlns="http://www.irs.gov/efile"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.irs.gov/efile">
        <Count>1</Count>
        <Acknowledgement submissionVersion="2007v1.0.1" validatingSchemaVersion="2007v1.0.1">
                <SubmissionId>48172420072410020002</SubmissionId>
                <EFIN>481724</EFIN>
                <GovernmentCode>UTST</GovernmentCode>
                <SubmissionType>TC-20S</SubmissionType>
                <TaxYear>2007</TaxYear>
                <SubmissionCategory>CORP</SubmissionCategory>
                <FilingStatus>Rejected</FilingStatus>
                <StatusDate>2008-04-12</StatusDate>
                <ErrorList errorCount="0">
                        <Error errorId="1">
                                <XPath>Not Applicable</XPath>
                                <ErrorCategory>State XML Validation</ErrorCategory>
                                <ErrorMessage>Could not validate XML against schema
```

```
                    </ErrorMessage>
                    <RuleNumber>Not Applicable</RuleNumber>
                    <Severity>Reject</Severity>
                    <DataValue/>
                </Error>
            </ErrorList>
        </Acknowledgement>
</AcknowledgementList>
```

Example 2 – Failed Business Rules Validation:

This return did not pass the Utah Business Rules. There were 27 errors. Each error is assigned an errorID with detailed element data. Element data refers to the Business Rules document on the Utah web site.

For brevity in this document, errorID's 3 thru 26 have been left out.

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<AcknowledgementList xmlns="http://www.irs.gov/efile"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.irs.gov/efile">
        <Count>1</Count>
        <Acknowledgement submissionVersion="2007v1.0.1" validatingSchemaVersion="2007v1.0.1">
                <SubmissionId>48172420072490060003</SubmissionId>
                <EFIN>481724</EFIN>
                <GovernmentCode>UTST</GovernmentCode>
                <SubmissionType>TC-20</SubmissionType>
                <TaxYear>2007</TaxYear>
                <SubmissionCategory>CORP</SubmissionCategory>
                <FilingStatus>Rejected</FilingStatus>
                <StatusDate>2008-04-12</StatusDate>
                <ErrorList errorCount="27">
                        <Error errorId="1">
                                <XPath/>
                                <ErrorCategory>Error in Procedure</ErrorCategory>
                                <ErrorMessage/>
                                <RuleNumber>103</RuleNumber>
                                <Severity>Reject</Severity>
                                <DataValue/>
                        </Error>
                        <Error errorId="2">
                                <XPath>/Additions/AddMiscellaneous/TotalAdditions</XPath>
                                <ErrorCategory>Associated Elements do not Sum to this Total.
                                </ErrorCategory>
                                <ErrorMessage>XML Element: TotalAdditions on Form: Schedule B
                                line: 15 Column: 1 Form Position: 190 Description: Total additions
                                 (add lines 1 through 14) Enter here and on Schedule A, line 2.
                                </ErrorMessage>
                                <RuleNumber>UT-TC20-1</RuleNumber>
                                <Severity>Reject</Severity>
                                <DataValue>0 : 1</DataValue>
                        </Error>
```

errorId 3 thru 26 would appear here . . .

```
                    <Error errorId="27">
                        <XPath>
                        /TaxDueOverpayment/TaxIncome/NonApportionIncAllocOutState
                        </XPath>
                        <ErrorCategory>Associated Element does not match this value.
                        </ErrorCategory>
                        <ErrorMessage>XML Element: NonApportionIncAllocOutState on
                        Form: Schedule A line: 5b  Column: 1 Form Position: 60 Description:
                        Allocated outside Utah (from Schedule H, line 26)
                        </ErrorMessage>
                        <RuleNumber>UT-TC20-91</RuleNumber>
                        <Severity>Reject</Severity>
                        <DataValue>0 : 1</DataValue>
                    </Error>
                </ErrorList>
            </Acknowledgement>
</AcknowledgementList>
```

In the Errors shown above, the XML Element details and Form, Line and Column Numbers should help the submitter identify the exact field in error. In addition, the “Form Position” identifies the unique identifier assigned to each element – a map of the fields and their Form Positions can be found by clicking on the “Form Positions Map” link for each form on the website.

This guide, and other relevant documentation related to Utah’s Fed/State MeF program can be found at http://tax.utah.gov/forms/pubs/pub-60.html.